

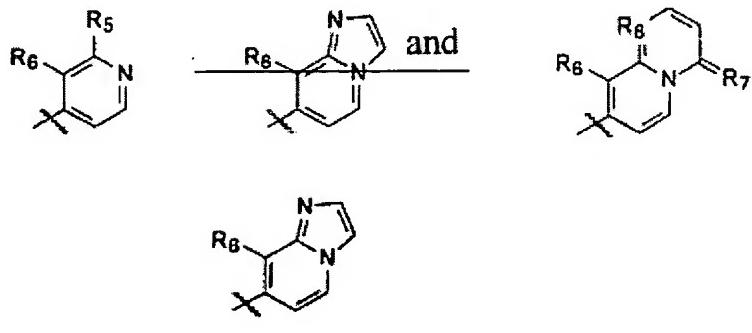
Appln No. 10/680,818
Amdt date March 26, 2007
Reply to Office action of September 26, 2006

Amendments to the Specification:

On page 3, line 19, please amend the paragraph to read as follows:

"The present invention provides methods for labeling structures, including .beta.-amyloid plaques and neurofibrillary tangles, *in vivo* and *in vitro*, and comprises contacting a compound of formula (I):

with mammalian tissue. In formula (I), R₁ is selected from the group consisting of --C(O)-alkyl, -C(O)-alkylenyl-R₄, --C(O)O-alkyl, --C(O)O-alkylenyl R₄, --C=C(CN).sub.2-alkyl, --C=C(CN)₂-alkylenyl-R₄,



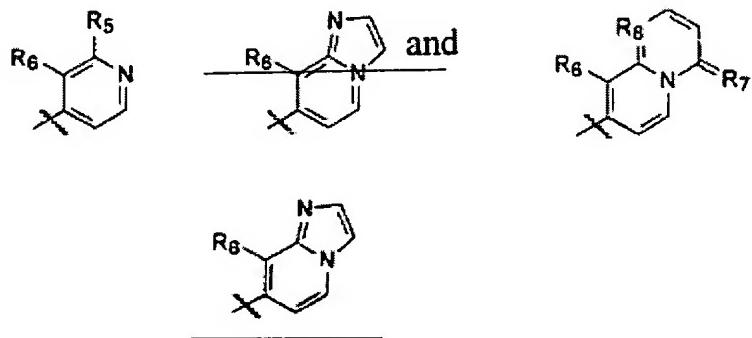
R₄ is a radical selected from the group consisting of alkyl, substituted alkyl, aryl and substituted aryl; R₅ is a radical selected from the group consisting of --NH₂, --OH, --SH, --NH-alkyl, --NHR₄, --NH-alkylenyl-R₄, --O-alkyl, --O-alkylenyl-R₄, --S-alkyl, and --S-alkylenyl-R₄; R₆ is a radical selected from the group consisting of --CN, --COOH, --C(O)O-alkyl, --C(O)O-alkylenyl-R₄, --C(O)-alkyl, --C(O)-alkylenyl-R₄, --C(O)-halogen, --C(O)NH₂, --C(O)NH-alkyl, --C(O)NH-alkylenyl-R₄; R₇ is a radical selected from the group consisting of O, NH, and S; and R₈ is N, O or S. R₈ is N.

On page 4, line 18, please amend the paragraph to read as follows:

"In still another embodiment, the invention is directed to a composition comprising a compound of formula (I):

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R₁ is selected from the group consisting of --C(O)-alkyl, --C(O)-alkylenyl-R₄, --C(O)O-alkyl, --C(O)O-alkylenyl-R₄ --C=C(CN).sub.2-alkyl, --C=C(CN)₂-alkylenyl-R₄,



R₄ is a radical selected from the group consisting of alkyl, substituted alkyl, aryl and substituted aryl; R₅ is a radical selected from the group consisting of --NH₂, --OH, --SH, --NH-alkyl, --NHR₄ --NH-alkylenyl-R₄, --O-alkyl, --O-alkylenyl-R₄, --S-alkyl, and --S-alkylenyl-R₄; R₆ is a radical selected from the group consisting of --CN, --COOH, --C(O)O-alkyl, --C(O)O-alkylenyl-R₄, --C(O)-alkyl, --C(O)-alkylenyl-R₄, --C(O)-halogen, --C(O)NH₂ --C(O)NH-alkyl, --C(O)NH-alkylenyl-R₄; R₇ is a radical selected from the group consisting of O, NH, and S; ~~R₈ is N, O or S;~~ R₈ is N; R₂ is selected from the group consisting of alkyl and alkylenyl-R₅ and R₃ is alkylenyl-R₅, and R₅ is selected from the group consisting of --OH, --OTs, halogen, spiperone, spiperone ketal, and spiperone-3-yl, or R₂ and R₃ together form a heterocyclic ring, optionally substituted with at least one radical selected from the group consisting of alkyl, alkoxy, OH, OTs, halogen, alkylenyl-R₅ carbonyl, spiperone, spiperone ketal and spiperone-3-yl. One or more of the hydrogen, halogen or carbon atoms can optionally be replaced with a radiolabel.

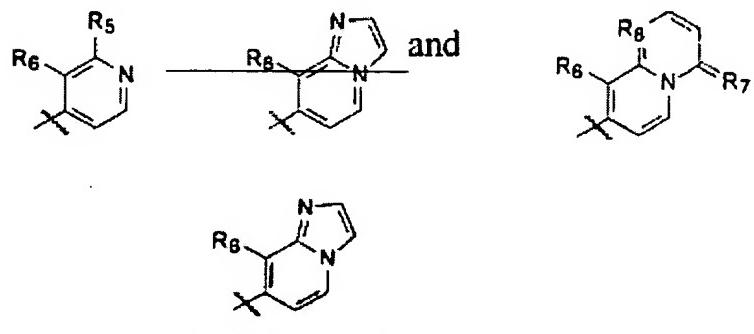
On page 7, line 16, please replace the second pictured chemical structure with the following corrected chemical structure:

On page 8, line 10, please amend the paragraph to read as follows:

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"The present invention is directed to methods for labeling structures such as β -amyloid plaques and neurofibrillary tangles in vivo and in vitro. The methods all involve contacting a compound of formula (I):

with mammalian tissue. In formula (I), R_1 is selected from the group consisting of $--C(O)$ -alkyl, $--C(O)$ -alkylenyl- R_4 , $--C(O)O$ -alkyl, $--C(O)O$ -alkylenyl- R_4 , $--C=C(CN)_2$ -alkyl, $--C=C(CN)_2$ -alkylenyl- R_4 ,



R_4 is a radical selected from the group consisting of alkyl, substituted alkyl, aryl and substituted aryl. R_5 is a radical selected from the group consisting of $--NH_2$, $--OH$, $--SH$, $--NH$ -alkyl, $--NHR_4$, $--NH$ -alkylenyl- R_4 , $--O$ -alkyl, $--O$ -alkylenyl- R_4 , $--S$ -alkyl, and $--S$ -alkylenyl- R_4 . $R_{sub.6}$ is a radical selected from the group consisting of $--CN$, $--COOH$, $--C(O)O$ -alkyl, $--C(O)O$ -alkylenyl- R_4 , $--C(O)$ -alkyl, $--C(O)$ -alkylenyl- R_4 , $--C(O)$ -halogen, $--C(O)NH_2$, $--C(O)NH$ -alkyl, $--C(O)NH$ -alkylenyl- R_4 . R_7 is a radical selected from the group consisting of O, NH, and S. R_8 is N, O or S. R_8 is N.